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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,762	04/18/2002	Ian J Forster	P/61728-PCT	2649

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KIRSCHSTEIN, OTTINGER, ISRAEL
& SCHIFFMILLER, P.C.
489 FIFTH AVENUE
NEW YORK, NY 10017

EXAMINER

JACKSON, BLANE J

ART UNIT PAPER NUMBER

2685

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/018,762	FORSTER ET AL.	
	Examiner	Art Unit	
	Blane J Jackson	2685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-23 and 25-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-30 and 32-35 is/are allowed.
- 6) ☐ Claim(s) 19-23, 31 and 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 19-24, 31 and 36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19-23, 31 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camiade et al. (US 5,305,469) with a view to Wood (US 3,299,358).

As to claims 19, 31 and 36, Camiade teaches a method and an amplitude modulation receiver for receiving an input signal and generating a corresponding demodulated signal (figure 4, output (DEM)) comprising:

A transistor *selectively biased for one of two states* operable as a reflection amplifier for reflectively amplifying the input signal and as a detector for detecting an input signal to generate the demodulated signal (microwave transistor (11), column 2, lines 45-65),

Wherein the receiver has a gain which is responsive to a magnitude of the input signal thereby providing the receiver with an automatic gain control characteristic (an

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inherent AGC characteristic through an appropriate choice of negative resistance exhibited by the transistor at its gate electrode identified by the applicant).

Camiade teaches a transistor that is selectively biased by a transmit/ receive switch or similar to primarily function as a reflection amplifier or detector with application as a microwave badge or transponder, column 2, line 66 to column 3, line 14, but does not teach the transistor is biased to be simultaneously operable as a reflection amplifier and as a detector.

Wood teaches a remote control receiver with a transistor stage that is biased for class B operation so that the modulation signal applied is rectified, or demodulated as well as amplified, figure 3, column 6, lines 14-27.

It would have been obvious to one of ordinary skill in the art at the time of the invention to fix the bias of the reflection amplifier/ detector transistor of Camiade with the class B approach of Wood such that the transistor stage provides a sensitive detector with amplification of the same to effect the subsequent function with less RF input, supporting circuits and source power.

As to claim 20, Wood of Camiade modified teaches the transistor stage is biased as class B, operative in a non-linear region of its current/voltage transfer characteristic, column 6, lines 19-21.

As to claim 21 with respect to claim 20, Camiade teaches in figure 2 the control of the transistor gate voltage determines the class of operation of the transistor where

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the non linear region understood to be associated with class B as opposed to class C, AB or A yields a low drain to source current of a few microamperes, column 3, lines 53-64.

As to claim 22, Camiade teaches wherein the transistor incorporates an electrode for receiving the input signal (figure 4, gate electrode), the electrode being connected through a signal path to a signal earth such that the path is operable for conveying reflected signals between the transistor and the signal earth, and for diverting the input signal to the electrode (feedback loop between the input and output to generate a negative resistance, column 5, lines 1-12).

As to claim 23, Camiade teaches an antenna assembly for receiving input radiation and generating therefrom the input signal for the transistor (figure 4, antenna 9, in this example as a badge, bidirectional RF signal to/ from the transistor (11), column 4, lines 50-56).

Allowable Subject Matter

3. Claims 25-30, 32-35 are allowed.

Conclusion

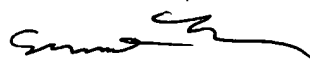
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Vimpari et al. (US 5,404,585) discloses a power detector that employs a class B operation of a transistor to function as an amplifier and detector.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Blane J Jackson whose telephone number is (571) 272-7890. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BJJ


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2000